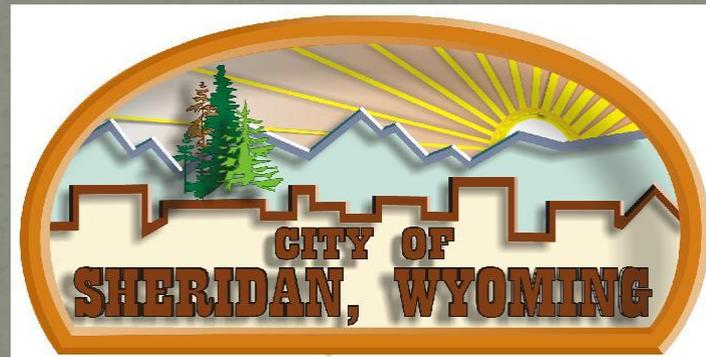


# City of Sheridan

Curbside Recycling Workshop

December 15, 2014

Public Works Department, Utilities Division



# Presentation Outline

- Sheridan Recycling 101
- Sheridan's History
- Value of Recycling
- Current Program and its Success
- Can we Improve? Sheridan's 2010 Pilot Program
- Recycling Goals
- Curb-side Recycling Evaluation

# Sheridan Recycling 101

- General Terms

- **Commodity** – all recyclable materials that have a current value on the open market. They are: aluminum, tin, paper, cardboard, paperboard, plastic and glass.
- **Drop-site** – a location containing several recycling bins by which people place their sorted commodities
- **MSW** – Household waste
- **Commingled recycling** – combining commodities together.
- **Sorted recycling** – having each commodity separated.

# Sheridan Recycling 101

## Commodities Pre 2007

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- Cardboard (businesses only)
- Aluminum
- Ferrous/scrap metals
- Mixed-paper
- Newspaper
- Refrigeration units
- Used Oil

## Commodities 2007 to Present

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- Plastics 1-7
- Cardboard
- Paperboard
- Tin cans
- Aluminum
- Ferrous/scrap metals
- Styrofoam
- Mixed-paper
- Newspaper
- Glass (all colors)
- Refrigeration units
- Poly-pipe
- Green-waste
- Pallets
- Asphalt
- Clean concrete
- Household Hazardous Waste
- Used Oil
- E-Waste

# Sheridan Recycling 101

- Ways to Recycle
  1. Voluntary drop off at a recycling center
  2. Voluntary drop off at drop-site collection locations
    - Can be commingled or sorted operations
  3. Curb-side collection of recycling
    - Can be commingled or sorted collection
  4. Waste-to-Energy (Waste Incineration)
- Processing and to Market
  - All MSW recyclables must be baled for transport
    - Commingled bales - \$20/ ton average
    - Sorted bales - \$95/ ton average



# Sheridan's History

(Prior to 2007)

- Six, small Alleycat trailers were set at different collection points within the City.
- Collection of some businesses was done manually with two screened trailers.
- Two vertical balers used to bale the material.



AlleyCat Trailer



Screened Trailer



Vertical Baler

# Sheridan's History

(2007 to Present)

- Installed and began using a horizontal baler
- Launched 7 drop-sites for sorted collection
- Expanded drop-site locations to 12 in 2010
  - Recyclables – service minimum once/ week
    - Operate 8 hours per day, 5 days per week
  - Green Waste – service daily during peak season
    - Operate 8 hours per day, 7 days a week
- Today most City residents are within .5 miles of a drop-site



**RECYCLING** in SHERIDAN  
Join the local effort to preserve our natural resources!

*"Thank you for helping to make Sheridan a cleaner, greener place to live!"*  
- Mayor Kinskey

**One-Stop Drop Sites**  
(Cardboard, newspaper, magazines, aluminum tin cans, plastic, glass and green waste)

1. City Landfill (83 East Ridge Road)
2. City Recycling Center (1148 800E Lane)  
No green waste
3. Skate Park parking area (adjacent to Thorne-Rider Park off 11th Street and Dana Avenue)
4. 5th & Highland (1261 Highland Avenue)
5. Kendrick Park (south side between Bellevue and Swan Streets)
6. Sheridan Senior Center (211 Smith Street)  
No green waste
7. K-Mart (2571 N. Main Street)
8. Behind Wash Yer Woolleys (on East Brundage Lane across from T&C Liquors)  
No green waste
9. Washington Park (On Coffeen Avenue next to Holiday Lodge)

**Green Waste Only Sites**

10. Oatts Memorial Park (on 7th Street between Sheridan Avenue and Saberton)
11. Marshall Park (on Big Horn Avenue at Edwards Drive)
12. Mavrakis Pond (on 8th Street near Dana Avenue) Available seasonally

**Plastic Shopping Bags**

13. Oatts Albertsons (1865 Coffeen Avenue)
14. Inside Wal-Mart (1695 Coffeen Avenue)

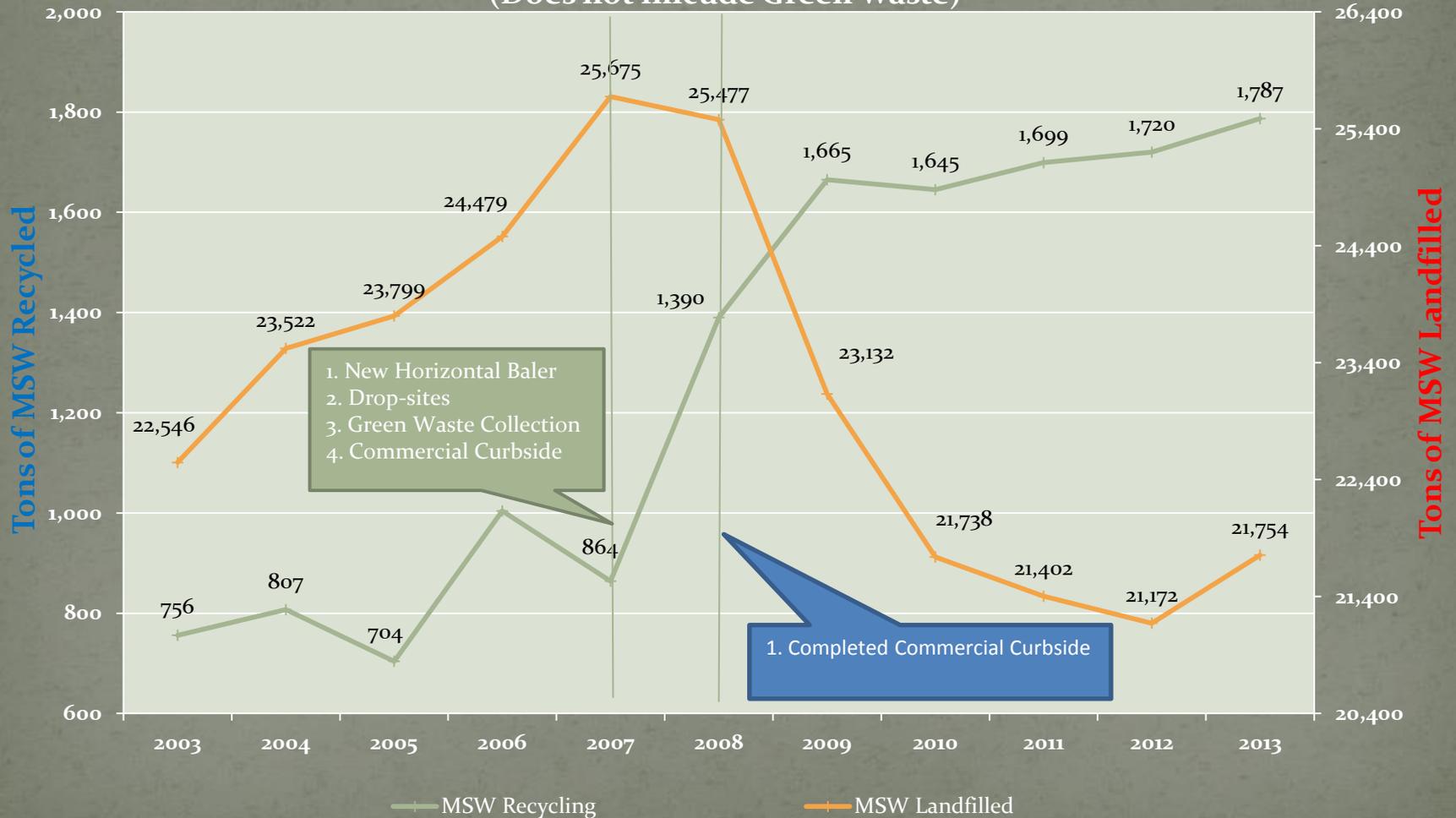
**SHERIDAN WYOMING**  
Recycling Questions? Call 672-5403

# Sheridan's History

## MSW Recycled vs Landfilled

2003-2013

(Does not include Green Waste)

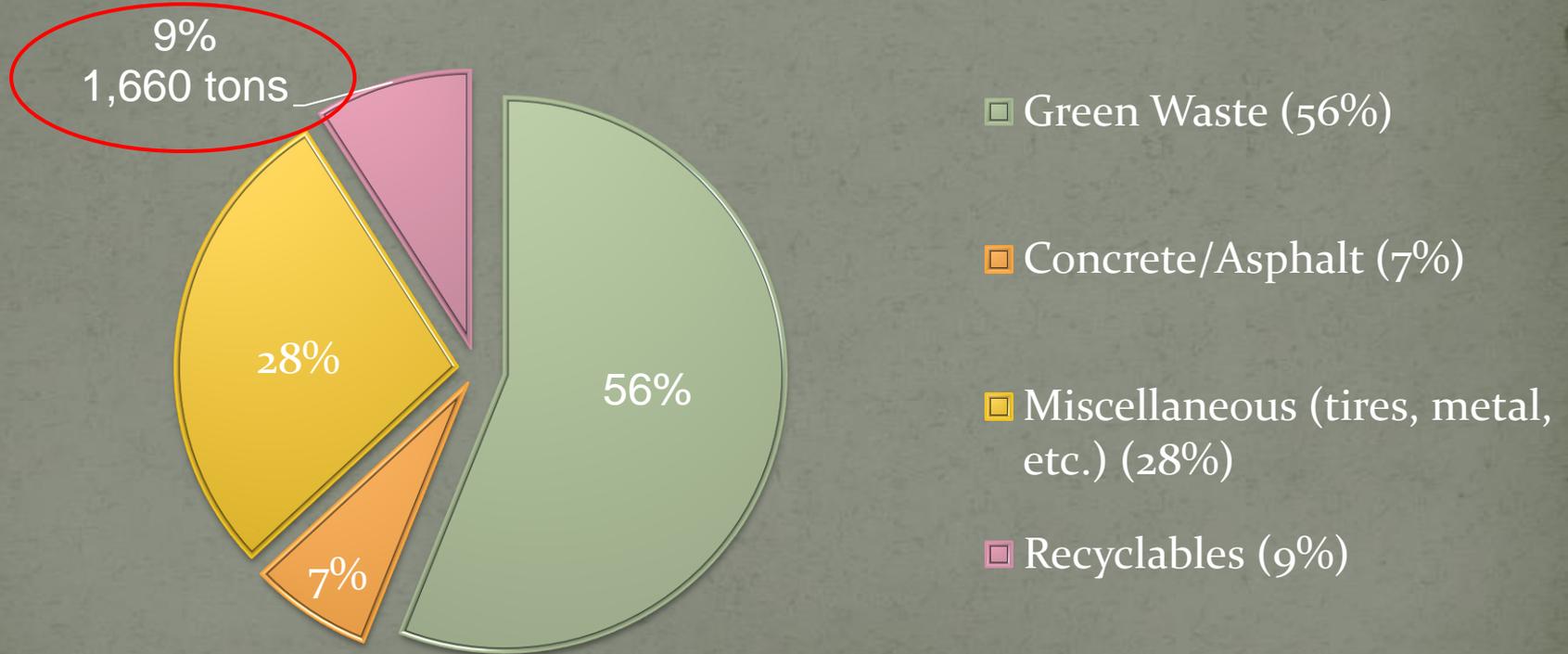


# Value of Recycling

- Less MSW going into landfill = saved landfill airspace = deferred cell construction costs = \$millions saved
  - Recycling cost benefits mirror C&D grinding operation benefits
    - 40% increase in airspace utilization = \$11M over 30 years in capital costs
- Lower net collection costs
  - Curb-side collection vs. solid waste collection
    - Curb-side recycling = \$73/ ton net savings over solid waste collection

# Current Program Success

- ❖ Approximately 30% of Sheridan's waste stream is diverted. Of that 30%...

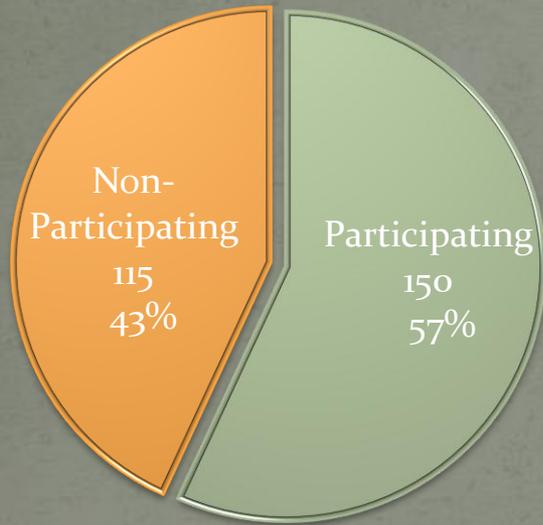


# Can we Improve? Pilot Curb-side Program - 2010



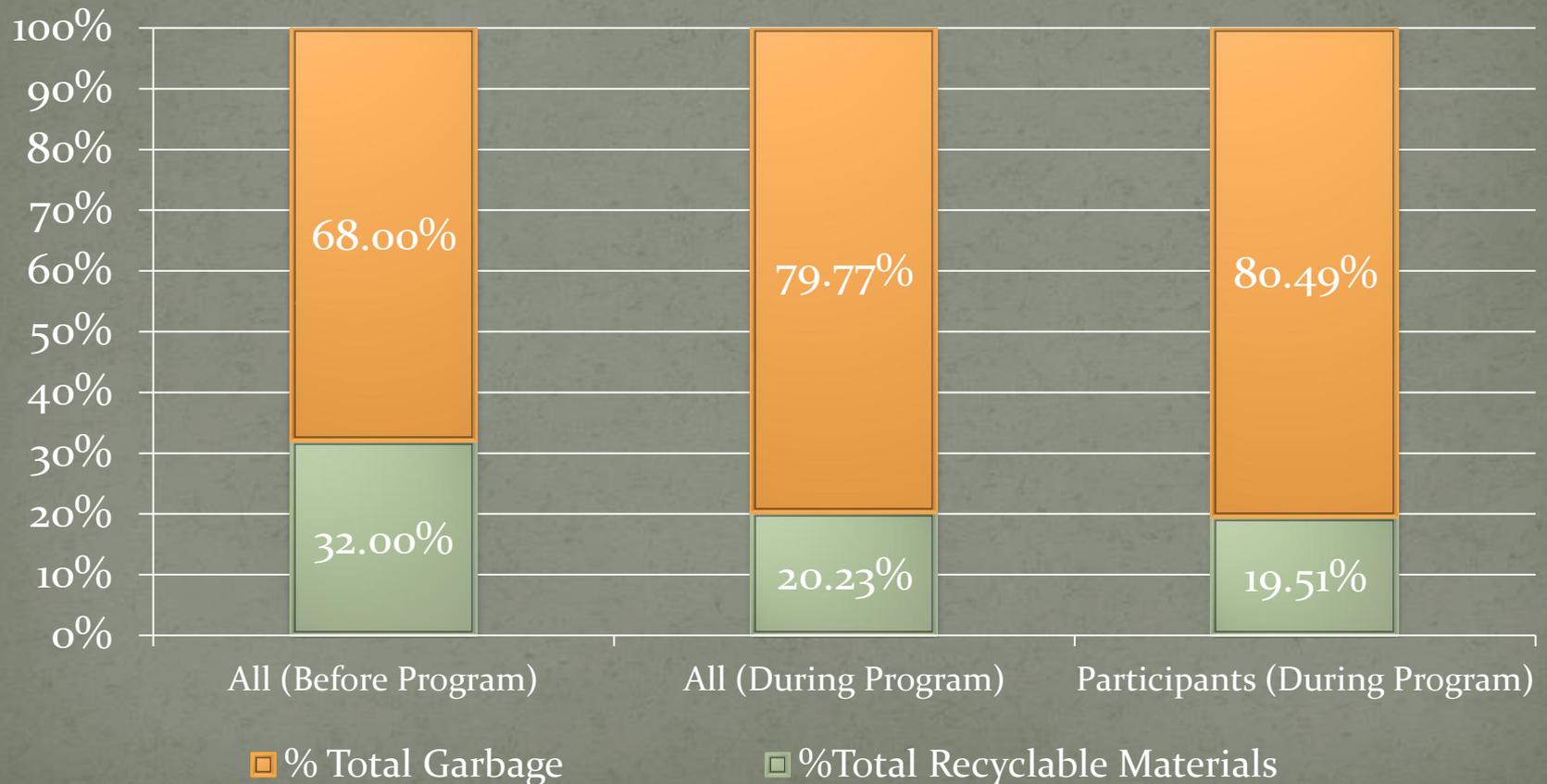
# Program Participation

Total Households = 265



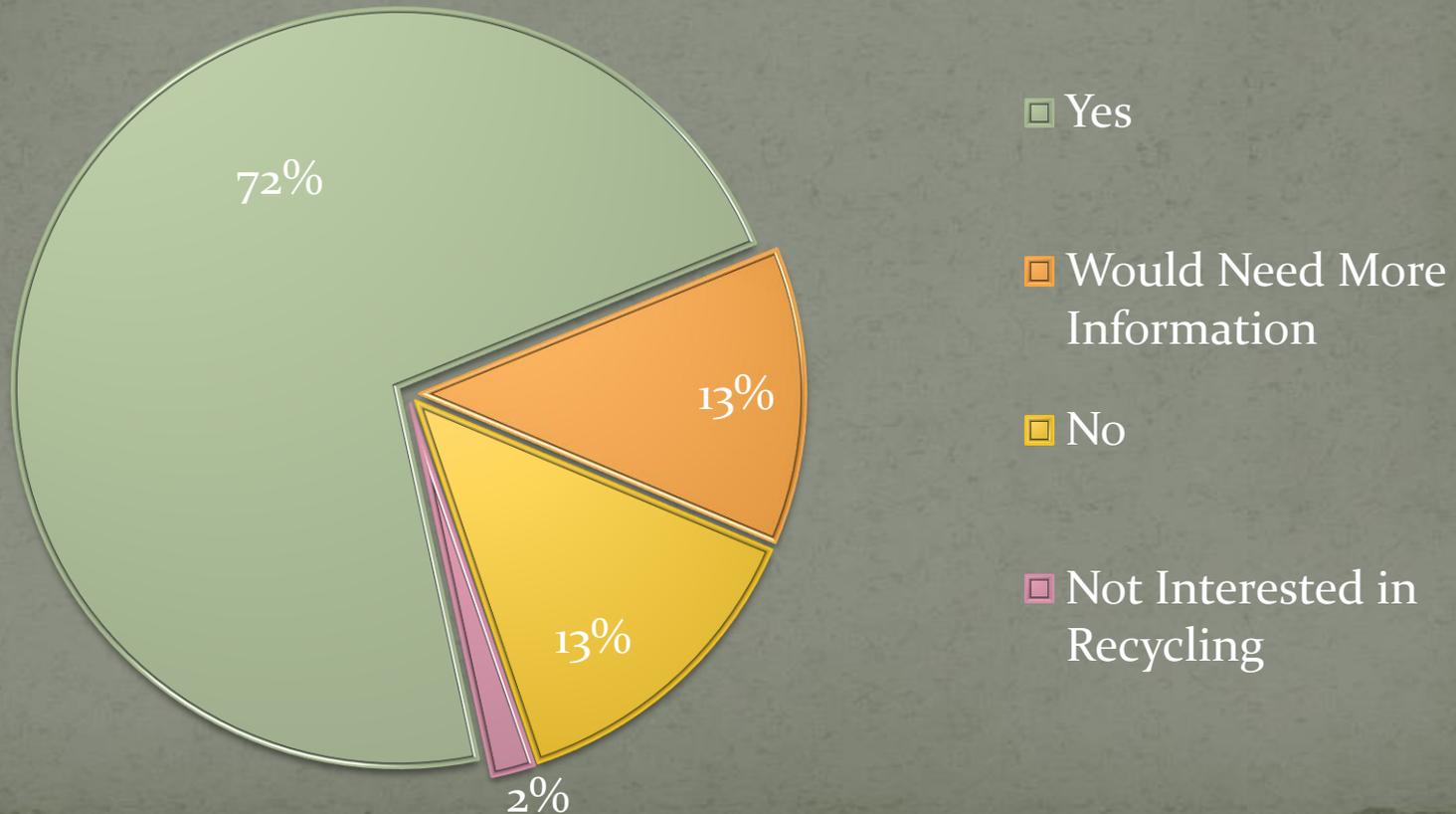
# Waste Characterization

Sparrow Hawk and Mountain View Waste Characterization  
(Does not include Green Waste)



# Future Participation?

If the City of Sheridan were to offer a curbside recycling program in the future, would you participate?



# What Resulted?

- Did not report curbside as affordable
  - Assumed still operating all drop-sites
  - Assume weekly collection
  - Based on non-sorted commodity pricing
- Need for evaluation:
  - Establish recycling goals
  - What's Sheridan's overall attitude toward recycling?
  - What would it take to make curbside work?

# Future Goals

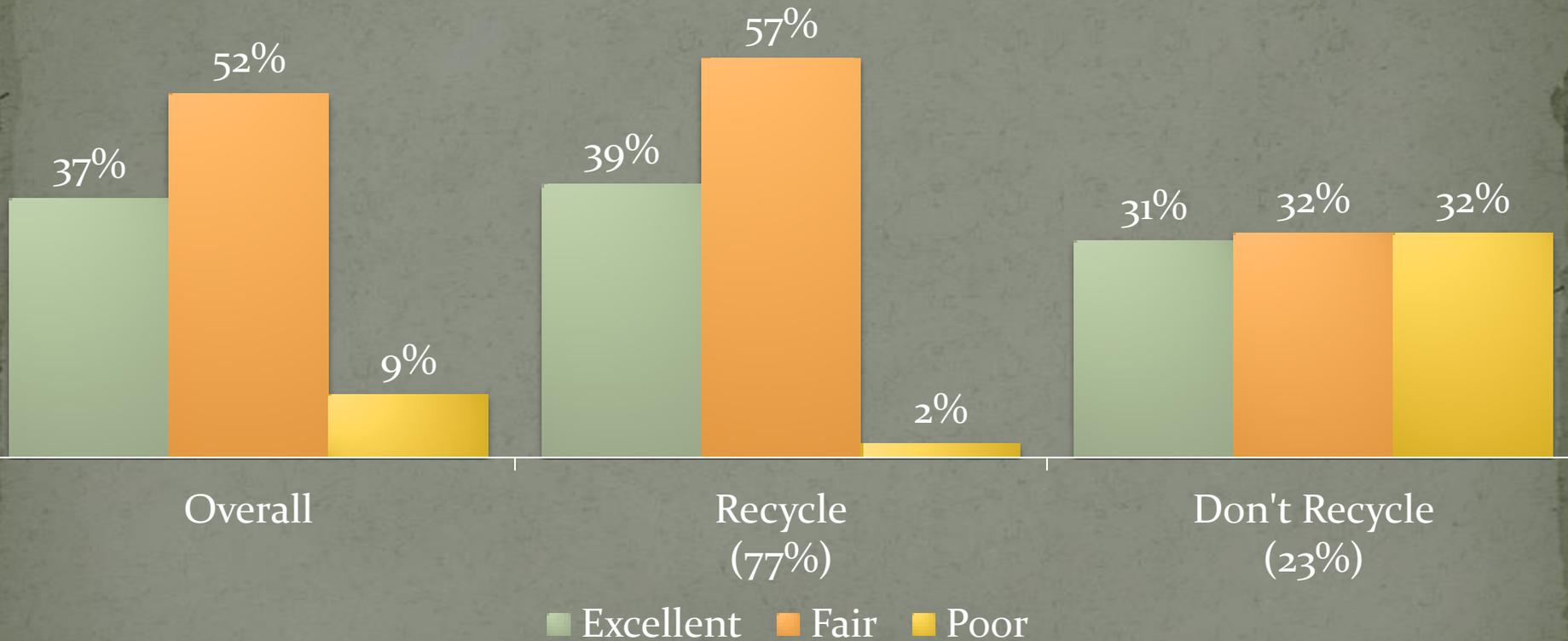
- Reduce capital costs of operating the landfill
  - Keep landfill tipping fees and subsequent rates as low as possible
    - 50% MSW recycling (4x increase)
      - Requires City and County participation
    - 75% total diversion
- How do we get there?
  - Cannot reach goals with current program
  - Curb-side recycling collection is a proven solution for maximizing a community's recycling efforts.

# Sheridan's Attitude Toward Recycling

- 2012 Public Opinion Survey
  - by Public Opinion Strategies
  - December 2012
  - Landline phone (80%) and Cell Phone (20%) Interviews
  - Accurate – Margin of error +/- 6.2%

# Sheridan's Attitude Toward Recycling

*How would you rate the City of Sheridan's current recycling program?*



# Sheridan's Attitude Toward Recycling

Even among recyclers, the majority acknowledge that they are not doing everything they can. They would say they...

**Recycle  
Everything Possible**

**44%**

**Recycle  
Some Things**

**36%**

**Recycle  
A Few Things**

**20%**

*\* Say they recycle (N=193)*

# Sheridan's Attitude Toward Recycling

*What are the one or two main reasons you do not recycle?*

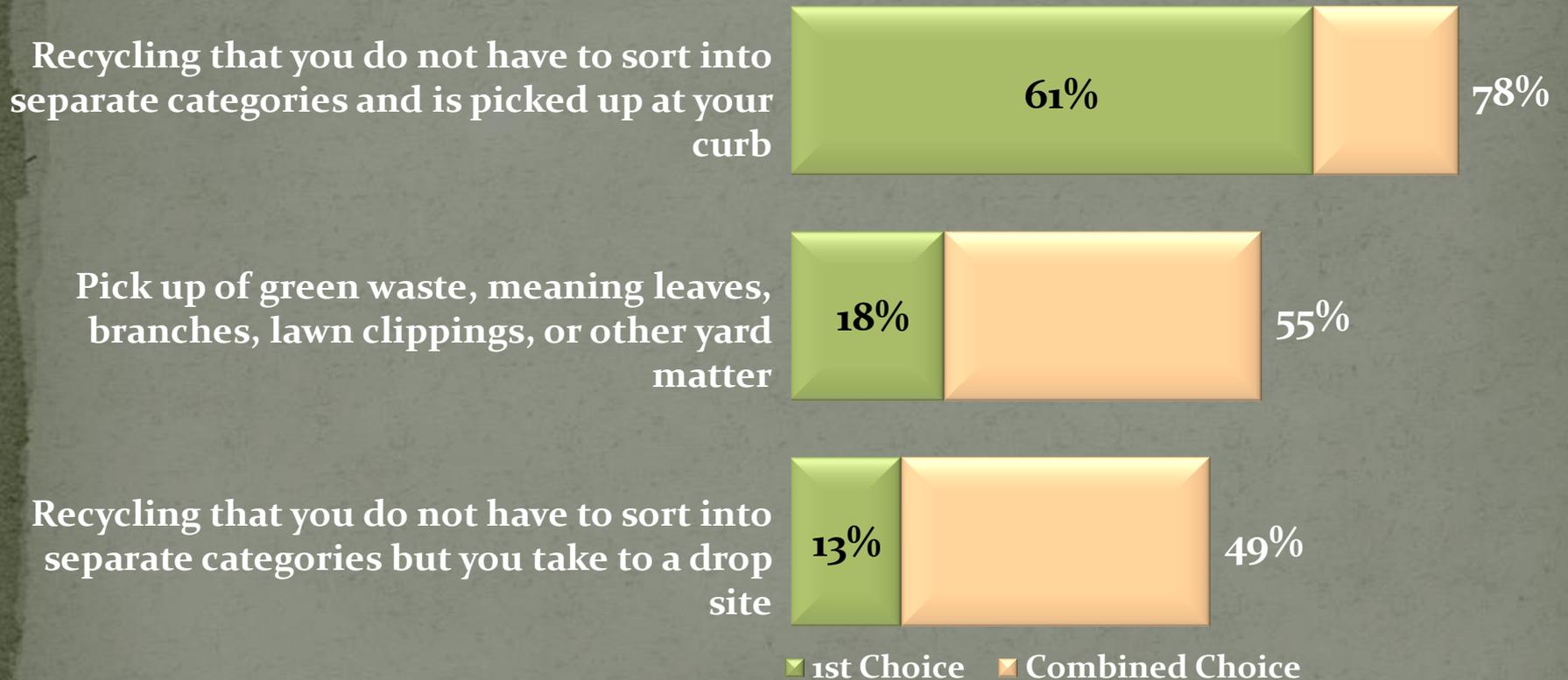
*(Size of phrase indicates its prevalence in comments)*

**Inconvenient**

**No motivation** **Age** **Not enough to recycle** **Apartment**  
**No pick-up** **Sorting**  
**No room** **Haven't thought about it** **Too much to recycle**  
**Location**

# Sheridan's Attitude Toward Recycling

*Which one of the following programs would you most like to have available in your neighborhood? And which would you like to have next?*



*If it was possible to have your unsorted recycling picked up at your curb, what is the most you would be willing to pay per month to use this service?*

7 Dollars or more

**25%**

4-6 Dollars

**30%**

3 Dollars or less

**30%**

Willing to pay \$3 or less

**85%**



# Curb-side Recycling Implementation Evaluation

- What is necessary to offer curb-side recycling?
  - Key Needs:
    1. Eliminate majority of drop-site collection
      - Two most used and service center can remain
    2. Recyclables must be sorted before baling and sold to brokers
      - \$95/ton on revenues
    3. Investment in:
      - Sorting line equipment (become our own sort center)
      - Additional staffing (collection driver, two additional sorters)
      - Collection truck
      - Recycling containers
    4. \$3.00 / month service fee

# Curb-side Recycling Implementation Evaluation

- What can we offer:
  - Commingled, curbside collection of recyclables
    - Less glass and green waste
  - Collection frequency - every other week
  - Cost per customer - \$3.00/month to start
  - Implementation within 6 months for a 2-phase roll-out

# Curb-side Recycling Implementation Evaluation

(Capital & Operating Expenses)

	First Year 2014-15	Annual 2015-16
<b>Budgeted</b>	\$1,352,777	\$659,848
<b>Funds Needed</b>	\$1,699,886	\$616,853
<b>Difference</b>	-\$347,109	\$42,995

# Curb-side Recycling Implementation Evaluation

(Capital Recovery)

Excess Revenue by % MSW Recycling  
(9% currently) (pro-forma)

Initial Capital	15 %	20%	30%
\$1,254,396	\$121,900	\$152,900	\$229,300
Capital Cost Recovery	8.9 yrs	7.1 yrs	4.8 yrs

# Recommendations

- Implement Universal, Curb-side Recycling Program
  - Prepare and present a Resolution to City Council
    - Authorization to:
      - Conduct recycling center improvements
      - Utilize capital reserves for initial capital investment
      - Purchase and install equipment and containers
    - Prepare a Resolution establishing and directing the charge of a \$3.00 /month curb-side recycling service fee
- Implement over 6 month period

# Questions

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# Universal Curb-side Recycling Schedule

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names	2015											
							Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug		
1																		
2	Complete Roll-out	171 days	Mon 12/15/14	Mon 08/10/15														
3	City Work Shop	1 day	Mon 12/15/14	Mon 12/15/14														
4	Public Education/Comment	46 days	Mon 12/15/14	Mon 02/16/15														
5	City Council (Resolution)	1 day	Mon 02/16/15	Mon 02/16/15														
6	Remodel Recycle Center	42 days	Mon 01/19/15	Tue 03/17/15														
7	Purchase & Install Equipment & Containers	90 days	Mon 01/19/15	Fri 05/22/15														
8	Deliver Containers Phase	40 days	Fri 04/24/15	Thu 06/18/15														
9	Start Collection of Phase	1 day	Sat 06/06/15	Sat 06/06/15														
10	Deliver Containers Phase	40 days	Fri 06/19/15	Thu 08/13/15														
11	Start Collection of Phase	1 day	Mon 08/10/15	Mon 08/10/15														

Project: Curbside Recycling 2015 Date: Mon 12/15/14	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only		Manual Progress	
	Summary		Inactive Task		Duration-only		Finish-only			